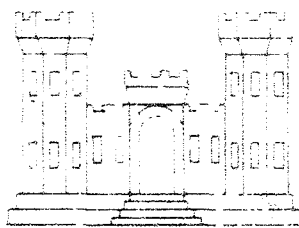


NOT FOR PUBLIC RELEASE

SURVEY (REVIEW OF REPORTS) OF

LYNN HARBOR

MASSACHUSETTS



AUTHORITY—THIS REPORT IS
SUBMITTED IN COMPLIANCE
WITH RESOLUTION, ADOPTED
8 FEB. 1944, BY THE COMMITTEE
ON RIVERS AND HARBORS OF
THE HOUSE OF REPRESENTA-
TIVES, UNITED STATES.

U. S. ENGINEER OFFICE
BOSTON, MASS
4 AUG. 1945

PS. Sec. 92 (Lynn Harbor, Mass.)

Boston, Mass.

BS 800.92 (Lynn Harbor Mass.)

SUBJECT: Survey (Review of Reports) of Lynn Harbor, Massachusetts

NEDGW
(4 Aug 45)

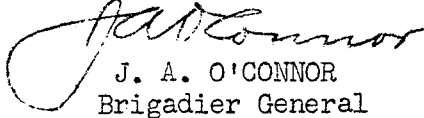
1st Ind.

CAT/kkm

Division Engineer, New England Division, Boston 10, Mass., 7 Aug 1945

TO: Chief of Engineers, U. S. Army, Washington 25, D. C.
ATTENTION: SPEWR

I concur in the recommendation of the District Engineer.


J. A. O'CONNOR
Brigadier General
Division Engineer

1 Incl. - n/c

SURVEY (REVIEW OF REPORTS) OF LYNN HARBOR, MASS.

Syllabus

The district engineer finds that local interests desire that no change be made in the requirements concerning local cooperation in connection with the existing project for Lynn Harbor, Mass., and he, therefore, recommends that no modification be made at this time in the conditions of local cooperation imposed by the River and Harbor Act of 30 August 1935.

War Department
United States Engineer Office
Boston 16, Massachusetts
4 August 1945

Subject: Survey (Review of Reports) of Lynn Harbor, Massachusetts.

To: The Chief of Engineers, U. S. Army, through the Division Engineer, New England Division, Boston 10, Mass.

1. Authority.— This report is submitted in compliance with the following resolution adopted 8 February 1944, by the Committee on Rivers and Harbors of the House of Representatives, United States Congress:

RESOLVED BY THE COMMITTEE ON RIVERS AND HARBORS OF THE HOUSE OF REPRESENTATIVES, UNITED STATES: That the Board of Engineers for Rivers and Harbors created under section 3 of the River and Harbor Act, approved June 13, 1902, be, and is hereby, requested to review the reports on Lynn Harbor, Massachusetts, submitted in Rivers and Harbors Committee Document Numbered 7, Seventy-first Congress, first session, with a view to determining if the recommendation regarding local cooperation should be modified in any way at this time.

2. Reports under review.— The reports under review were authorized by a resolution of the Committee on Rivers and Harbors of the House of Representatives, adopted 16 December 1927. The survey report recommended "a channel 25 feet deep and 300 feet wide from deep water west of Bass Point, Nahant, to a turning basin 550 feet wide at the head of the harbor, but with straightening of the curve in the approach to the turning

basin, at an estimated cost of \$912,000, with \$6,000 annually for maintenance, subject to the provision that local interests give assurances satisfactory to the Chief of Engineers and the Secretary of War that they will dredge and maintain a suitable channel of 25-foot depth extending a distance of 4,800 feet westerly from the inner end of the Federal improvement".

3. The River and Harbor Act of 3 July 1930 authorized a channel of 22-foot depth as described above, provided that local interests dredge a branch channel to 22 feet. The 22-foot branch channel was provided by local interests and the Federal channel was completed in 1934.

4. The River and Harbor Act of 30 August 1935 authorized the deepening of the channel to 25 feet subject to the provision by local interests of a 25-foot depth in the branch channel. No work has been done on the 25-foot channel either by local interests or the Federal government.

5. Description.- Lynn Harbor, which is formed by a natural indentation of the coast line, is about 14 miles by water northeasterly from Boston, and opens into Broad Sound. It is about 3 miles long, north and south, and 1-1/2 miles wide, east and west, and a large part of it is dry at low water. There are two channels in Lynn Harbor, the western channel into Saugus River, 12 feet deep, and the main or Lynn Channel on the east leading to the wharves at the head of the harbor, which is 22 feet deep. The latter has a direct entrance from Broad Sound near White Rock and a second but tortuous entrance near the Nahant shore and Black Rock. The harbor is protected from east and southeast storms by Lynn Beach and the peninsula of Nahant, but is exposed to southerly storms.

6. There is an anchorage basin for yachts approximately 200 yards wide and 400 yards long located eastward and southeastward of the turning basin at the head of the easterly channel, and extending southward from the Lynn Yacht Club.

7. The mean and spring ranges of tide in Lynn Harbor are 9.2 and 10.4 feet, respectively. No questions of water power, flood control, or other special subjects are involved. No bridges cross the main channels in Lynn Harbor, but Saugus River is crossed by four bridges having draw openings of 50 to 100 feet. The locality is shown on U.S. Coast and Geodetic Survey Chart No. 240, and on the map accompanying this report.

8. Tributary area.-- The City of Lynn is 10 miles northeast of Boston and is the largest city in Essex County. In 1940 it had a population of 98,123, with real estate valued at \$120,387,335. It is the manufacturing and shopping center for many surrounding cities and towns, principally Lynnfield, Marblehead, Nahant, Saugus and Swampscott. Although the shoe factories and their allied trades predominate numerically, the largest industry is the General Electric Company whose two plants employ more than 20,000. In 1939 there were 272 industrial establishments in Lynn, employing 12,656 persons with products valued at \$70,495,275. The principal articles manufactured at that time were footwear and related items, electrical machinery, leather and leather goods, bakery products, iron and steel products, wearing apparel and cutlery. Since the outbreak of the present war, Lynn's manufacturing facilities have been utilized in the war program, resulting in the curtailment of civilian production and increased military production.

9. Lynn is served by the Boston and Maine Railroad and there is an excellent system of highways, with established bus and truck lines, connecting it with Boston and the surrounding cities and towns.

10. Prior reports.-- There have been no reports on Lynn Harbor during the past five years. The reports being reviewed are the last prepared on this locality.

11. Existing project.-- Previous projects for the improvement of Lynn Harbor were authorized by the River and Harbor Acts of 2 August 1882, 11 August 1888, 13 June 1902, 25 June 1910, and 3 July 1930.

12. The River and Harbor Act of 2 August 1882 appropriated \$60,000 for the improvement of Lynn Harbor. The River and Harbor Act of 11 August 1888 appropriated \$10,000 for the continuing improvement of Lynn Harbor, and provided that part of that sum could, in the discretion of the Secretary of War, be used at the Point of Pines and in the western channel leading thereto, and a portion in the basin inclosed by the wharves of said City of Lynn. The River and Harbor Act of 13 June 1902 authorized the dredging of a channel 200 feet wide from the sea to the anchorage basin, and an anchorage basin 500 feet by 300 feet, all to a depth of 15 feet. The River and Harbor Act of 25 June 1910 authorized the widening and straightening of the channel to 300 feet wide, and making a turning basin 500 feet square, all to a depth of 15 feet. The River and Harbor Act of 3 July 1930 authorized the dredging of a channel 22 feet deep and 300 feet wide from deep water west of Bass Point, Nahant, to a turning basin 550 feet wide at the head of the harbor and to straighten the curve in the approach to the turning basin, provided that before prosecuting this work, local interests give assurances satisfactory to the Chief of Engineers and Secretary of War that they will dredge and maintain a suitable channel of 22-foot depth extending a distance of 4,800 feet westerly from the inner end of the Federal improvement. To date the expenditures for the above improvements amount to \$855,335.61, of which \$755,042.91 was for new work and \$100,292.70 was for maintenance.

13. The existing project authorized by the River and Harbor Act of 30 August 1935 provides for a channel 25 feet deep and 300 feet wide from deep water west of Bass Point, Nahant, to a turning basin 550 feet wide at the head of the harbor, but with straightening of the curve in the approach to the turning basin, subject to the provision that local interests give assurances satisfactory to the Chief of Engineers and the Secretary of War that they will dredge and maintain a suitable channel of 25-foot depth extending a distance of 4,800 feet westerly from the

turning basin at the inner end of the Federal improvement. To date no work has been done toward deepening the 22-foot channel to 25 feet as authorized by the existing project. The latest (1935) approved estimate for annual cost of maintenance is \$6,000.

14. Local cooperation.- The River and Harbor Act of 3 July 1930 required that local interests give assurances satisfactory to the Chief of Engineers and Secretary of War that they will dredge and maintain a suitable channel of 22-foot depth extending a distance of 4,800 feet westerly from the inner end of the Federal improvement. This channel has been dredged.

15. The River and Harbor Act of 30 August 1935 required that local interests give assurances satisfactory to the Chief of Engineers and Secretary of War that they will dredge and maintain a suitable channel of 25-foot depth extending a distance of 4,800 feet westerly from the inner end of the Federal improvement. The modification of this requirement is the subject of this report.

16. Other improvements.- The Commonwealth of Massachusetts dredged an anchorage basin 8 feet deep at the upper end of the harbor at a cost of \$121,600, and spent \$184,000 in improvement of Saugus River Channel.

17. Terminal and transfer facilities.- There are 16 piers and wharves serving the Port of Lynn, generally of open pile and timber decks with stone bulkhead retaining walls and solid fill at the inner ends, and depths ranging from 4 to 22 feet. Of the 13 wharves located in the basin at the head of the harbor, 5 are used for the receipt and storage of coal and coke, with depths varying from 6 to 18 feet, 3 of which are equipped with steam operated coal unloading towers and elevated tramways for dump cars. There are 2 privately owned and operated yacht club piers, with depths of 4 to 9 feet, one of which has a hand-operated derrick. Two of the wharves are used for the receipt of fish and lobsters, and have depths of 6 to 15 feet. One with depths of 9 to 11 feet, is used for the receipt

of lumber, 2, with depths of 6 to 8 feet, are used for the storage of stone curbing and parking cars, and the other is in very poor condition and is not in use.

18. The Lynn Gas & Electric Company owns and operates 2 wharves on the municipal channel, about 1,500 feet southwest of the basin, for the receipt of coal and oil. They have depths of 22 to 29 feet, and one is equipped with two movable electric cranes.

19. The remaining wharf is located on the Saugus River just above the Boston and Maine Railroad Bridge, and is owned and operated by the General Electric Co. for the receipt of coal, sand and oil. It has depths of 12 feet and is equipped with a movable electric crane. This is the only wharf in Lynn Harbor having rail connections.

20. Improvement desired.— At the expressed desire of the Mayor of Lynn, no public hearing was held to consider the modification of the local cooperation required under the existing project. The desire of local interests is that no action be taken at this time.

21. Commerce.— The principal commodities which make up the waterborne commerce of Lynn are coal, petroleum products and fertilizer materials. The tonnages handled at this port during the period 1940 to 1944 are indicated in the following tabulation:

<u>Year</u>	<u>Tons</u>
1940	322,778
1941	379,029
1942	263,332
1943	371,563
1944	333,990

22. Vessel traffic.— The following table gives the trips and drafts of vessels using Lynn Harbor in 1944:

Draft ft.	<u>Vessel Traffic</u>							
	<u>IN-BOUND</u>				<u>OUT-BOUND</u>			
	Stmr.	Motor Vessels	Barges	Total	Stmr.	Motor Vessels	Barges	Total
23	26			26				
22 to 24			1	1				
20 to 22			2	2				
18 to 20	6		12	18				
16 to 18			14	14				
14 to 16			20	20	26			26
12 to 14	2	31		33			6	6
Less than 12			22	22	8	31	65	104
Total	34	31	71	136	34	31	71	136
Total net reg. ton.	77,142	25,395	66,418	168,955	77,142	25,395	66,418	168,955

23. Difficulties attending navigation.- None.

24. Discussion.- A resolution adopted by the Committee on Rivers and Harbors of the House of Representatives 8 February 1944 called for a review of the reports on Lynn Harbor, Massachusetts, to determine the advisability of modifying the recommendation regarding local cooperation. Immediately upon the adoption of this resolution a report was made by this office, upon the request of the Chief of Engineers, regarding the urgency of the investigation called for. In response to an inquiry by this office concerning the background of this resolution, the sponsor stated: "I believe if you will address a letter to the Mayor of Lynn in regard to this matter, he will give you such information as he may have available". This office wrote the Mayor on 15 March 1944 in an attempt to determine exactly what was desired in the way of modification. No reply was received and, in view of the knowledge which this office had of the Lynn project, it was considered that the report could be held in abeyance until such time as it would be normally released for prosecution.

25. On 2 February 1945 the Board of Engineers for Rivers and Harbors released the resolution for prosecution in such manner as not to interfere with the primary demands of the war program.

26. This office wrote the Mayor of Lynn on 6 April 1945 requesting information concerning the degree of modification desired and the names of interested parties, with a view to holding a public hearing. His reply, dated 9 April 1945, reads as follows:

"Replying to your letter of April sixth, relative to modification of your program for harbor development as pertains to Lynn Harbor, please be advised that since first writing you a different situation has developed which at least temporarily changes our plans.

"For the time being, therefore, I suggest you disregard my previous communications.

"I want to thank you, however, for your kindness in considering same and your interest in writing me to this effect.

Very truly yours,

Copy to:
Hon. George J. Bates,
Massachusetts Congressman
House of Representatives
Washington, D. C.

/s/ Arthur J. Frawley"

No previous communications had been received from the Mayor of Lynn and the intent of his letter was not quite clear. In a telephone conversation shortly thereafter he requested a delay of a month during which time he expected his plans to develop sufficiently to permit him to give us more definite information. Further telephone calls to his office during the latter part of May resulted in the letter quoted below, dated 1 June 1945:

"Some months ago I solicited the assistance of your local congressman to assist in obtaining a grant from the Federal Government in dredging Lynn Harbor. At that time I had in mind the dredging of a section of the Harbor approaching land owned by the City of Lynn and commonly known as Port Authority Land.

"Since that time other propositions with connection to this particular land have developed which changed temporarily, at least, the purpose to which I anticipated the land might be used.

"Without committing the City of Lynn to a permanent abandonment of the proposition of dredging the Lynn Harbor, I think that, it may, for the present, be eliminated.

"Another section of Lynn Harbor is at present in need of dredging for the passage of coal and lumber barges to certain wharves. The funds necessary for the dredging of that portion are being asked of the Commonwealth of Massachusetts by members of the State House of Representatives. The proposition I had originally in mind differs from their proposition, and consequently, I would not desire to have this letter in any way construed as eliminating their requests to the Commonwealth of Massachusetts.

"I trust this will enable you to make your necessary report to your superiors.

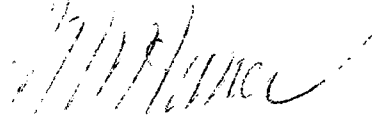
Yours very truly,

/s/ Arthur J. Frawley"

Contacts were also made with the City Engineer and the Chamber of Commerce, but they were unable to furnish any enlightening information. The Mayor seems to be the only person involved in the request for modification.

27. Conclusions.- The district engineer concludes that the City authorities of Lynn are desirous of holding the modification of the local cooperation in abeyance indefinitely.

28. Recommendation.- In view of the above, it is recommended that no modification be made at this time, of the conditions of local cooperation as stated in the report on Lynn Harbor, Massachusetts, submitted in Rivers and Harbors Committee Document No. 7, Seventy-first Congress and authorized by the River and Harbor Act of 30 August 1935.



N. W. HANER,
Lt. Col., Corps of Engineers,
Acting District Engineer.

Inclosure:
Map

